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<b>Notice of Allowability</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/722,366		ZIMMERMANN ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Douglas N. Washburn		2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 28 August 2007.
2. ☒ The allowed claim(s) is/are 1-4.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|---|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date _____</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____</li> </ol> |
|---|---|

**DETAILED ACTION**  
**EXAMINER'S AMENDMENT**

1 An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr Gerald Kiel on 15 November 2007.

The application has been amended as follows:

Please amend claim 1 as follows:

1. (Currently Amended) Multi-channel metering apparatus with automatic calibration with several dispensing channels (1) respectively with a nozzle (2) and a micro-valve (4), whereby [the] a plurality of micro-valves (4) each exhibit a discharge opening (3), which is respectively connected with one of a plurality of nozzles (2) and at least one supply opening (5 or 6) is respectively present on the micro-valves (4), which are respectively connected with an outlet of a distributor (8, 13 or 15), the inlet of which is indirectly connected via a flow sensor (10) with a vessel (9, 14 or 17) filled with a fluid and paths between the inlet and a plurality of outlets of the distributor exhibit the same fluidic resistance as well as a pressure source (19) to produce overpressure in the vessel (9, 14 or 17) and a control unit (16) connected with the flow sensor (10) and the micro-valves (4) and generates the individual control signals for the micro-valves (4) from the measured values received from the flow sensor (10).

***Response to Arguments***

2 Applicant's arguments, see amendment, filed 28 August 2007, with respect to Claim 1 have been fully considered and are persuasive. The §103(a) rejection of claims 1-3 has been withdrawn. Further, objection to claim 4 has been withdrawn.

Applicant argues Johnson (US 6,983,636) discloses a multi-channel dispensing device that is calibrated by external calibrating means; Shvets (US 2003017563) describes a multi-channel dispensing head in which a calibration of the individual dispensing channels is not provided; Shvets does not provide a flow sensor; Johnson provides a flow sensor located to determine pressure from an output flow-rate at the output of the distribution channels; and Shvets does not provide the same fluidic resistance at the output of the distributor channels.

Applicant additionally argues that there is no motivation to combine the cited references to disclose the claimed invention. Even if an additional valve at the input of the distributor according to Shvets is integrated in a device according to Johnson, the dispensing volume of the individual channels is already controlled by the valves in the individual dispensing channels. Furthermore, if a valve at the input of the distributor according to Shvets were substituted for the valves in the individual channels according to Johnson, an optical detection of the dispensed individual dispensing volumes would be useless because the dispensing of the individual dispensing channels could no longer be controlled by only one valve at the input of the distributor and, therefore, the detected dispensing volumes would no longer be usable as control variables. Therefore neither cited reference either alone or in combination teach or suggest a multi-channel dispensing device with a distributor with an identical fluidic resistance for the individual connections between the input and the individual outputs and a flow sensor at the input of a distributor.

Examiner agrees Johnson and Shvets either alone or in combination teach or suggest fail to disclose all claimed limitations of the instant invention.

***Allowable Subject Matter***

3 Claims 1-4 are allowed.

The following is an examiner's statement of reasons for allowance:

Claim 1 recites, in part, "an outlet of a distributor, the inlet of which is indirectly connected via a flow sensor with a vessel filled with a fluid and paths between the inlet and a **plurality of outlets of the distributor exhibit the same fluidic resistance**". This feature **in combination with the remaining claimed structure** avoids the prior art of record.

Claims 2-4 depend from claim 1.

It is these limitations, which are not found, taught or suggested in the prior art of record, and are recited in the claimed combination that makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

4 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas N. Washburn whose telephone number is (571) 272-2284. The examiner can normally be reached on Monday through Thursday 6:30 AM - 4:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DNW

  
**John Barlow**  
**Supervisory Patent Examiner**  
**Technology Center 2800**